KONSTANTIN
PRESLAVSKY
UNIVERSITY
SHUMEN

**ШУМЕНСКИ УНИВЕРСИТЕТ
"ЕПИСКОП КОНСТАНТИН
ПРЕСЛАВСКИ"**

Faculty of Education
Department of Social Work

## ABSTRACT

dissertation work for obtaining a scientific degree

"Doctor of Philosophy"

**Nedko Petrov Petrov**

**„Impact of global institutions for long-term forecasting on global
integration processes "**

to acquire the educational and scientific degree "doctor"

|  |  |
|---|---|
| *Area of higher education:* | 3. Social, economic and legal sciences |
| *Professional field:* | 3.4. Social activities |
| *Doctoral program:* | Organization and management outside the sphere of material production (Social activities) |

Supervisor:
Professor DSc Sonya Borisova Ilieva

**Shumen**
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The dissertation was discussed, approved and proposed for official defense at a meeting of the extended department council of the Department of Social Work, at Faculty of Education of Konstantin Preslavsky – University of Shumen.

The dissertation consists of an introduction, a concept, three chapters, a conclusion and a list of references and appendices, with a total volume of **228 pages**, which are distributed as follows:

| Section of the dissertation | Number of pages |
|---|---|
| Introduction | 4 |
| Concept | 8 |
| First chapter | 42 |
| Second chapter | 67 |
| Third chapter | 80 |
| Conclusion | 5 |
| References | 15 |
| Applications | 7 |

The volume of the **main text of the dissertation** (content, introduction, concept, three chapters and conclusion) consists of 200 **pages**.

**The refernces** consists of a total of **222 titles,** of which**:**
- in Cyrillic - 43 titles;
- in Latin - 172 titles;
- online sources – 7.

The text of the dissertation is illustrated with 25 tables, 6 images and 24 figures and supplemented with 2 appendices.

**The public defense of the dissertation will take place on 15.06.2021, in 211 halls of the Faculty of Pedagogy of the University of Shumen "Bishop Konstantin Preslavski" from 13:00, and if impossible will be held in an electronic environment.**

# CONCEPT

The dissertation presented for consideration is a research work dedicated to the global integration around the ideas of well-known institutions for long-term forecasting, pushed humanity to progress in various fields, containing significant original theoretical and practical research at the scientific level, located in the expanded structure (content).

The theoretical, leading idea for understanding the dissertation is related to its individual elements, shown below.

**The actuality of the thesis** is determined by the dynamics of the development of world society, related to the overall change and problem solving in it, as well as assistance in making decisions related to human well-being. This dynamic is related to the numerous and complex interactions between people and their environment, with the future of human civilization as a whole. For these reasons, knowledge of forecasting future processes in human society as a whole is extremely important. This implies to cover the various trends in its development and to multiply the positive ones in the foreseeable future, but already filled with new content.

The long-term forecasting is especially strong in systems whose potential changes are developing in unknown directions. In this sense, they are characterized by a high degree of uncertainty, but have the potential for change that could radically change their future.

*The influence of global institutions for long-term forecasting on global integration processes deserves attention because:*

- the topic responds to the growing need to use methods and techniques for long-term forecasting, which are not only based on the projection of current trends, but also consider different development scenarios and possible positive breakthroughs in the future;
- long-term forecasting is a tool for providing information on possible options for human development;

- it can predict and promote the success of society or a certain area of it in the future for years to come, while substantiating warnings of potential dangers to humanity.

Everything reflected so far determines and presupposes the substantiation of the thesis, the purpose, the tasks, the object, the subject and the hypothesis of the present dissertation:

**THESIS:** The dissertation supports the thesis that the world institutions for long - term forecasting formulate ideas around which there is global integration in human society and around which its prosperity gravitates.

**PURPOSE:** To systematize, analyze and summarize the scientific information about ideas of institutions for long-term forecasting, around which there is global integration.

**TASKS:**
1. Presenting the development of ideas and practices for long-term forecasting from Antiquity to the Modern Age and institutionalizing the need to manage the future through science-based forecasts. Creating an idea of the science Futurology - the science of the future, a symbol of long-term forecasting.
2. Defining basic concepts and theoretical positions related to long-term forecasting.
3. Creating a theoretical idea of the ideas in long-term development, which served for global integration around them, standing at the center of the dissertation.
4. Analyzing scientific documents that show this global integration around ideas that show a comprehensive forecasting of processes and phenomena in human society as a whole.
5. Implementation of an assessment of the effectiveness of long-term forecasting, through the results of a survey with students studying in the discipline "Futurology".

**OBJECT:** Long-term forecasting within human society.

**SUBJECT:** Influence of the ideas of world institutions on long-term forecasting on the development of human society.

**HYPOTHESIS:** There is irrefutable evidence in the development of human society for the influence of global institutions for long-term forecasting on the global processes of integration around their ideas.

### RESEARCH METHODOLOGY
**Three methodological levels** have been implemented:
1. **General methodology** – application of general scientific principles, which are based on a systematic approach: historical method, objectivity, dialectics, transition from concrete to abstract, concretization, unity between theory and practice, systematic analysis, realization of analogies, etc.
2. **Private (special) methodology**, representing the realization of the general scientific principles:
   - **systematic approach**, allowing the disclosure of the diverse manifestation of long-term forecasting, determining its place in science and its application in society as a whole or its field;
   - **scientific description** of the effectiveness of long-term forecasting;
   - **theoretical study of scientific sources** to gather information about long-term forecasting and its ideas.
3. **A set of specific methodologies for empirical sociological research:**
   - **Document analysis** – a sociological method that proves the influence of global institutions for long-term forecasting on the global processes of integration around their ideas;
   - **Questionnaire survey** – conducted among students studying the science of Futurology, on the need for long-term forecasting and global integration around its important ideas;

- **summary and analysis** of information registered by the Analysis of Documents and the Survey among the students studying in the discipline "Futurology";
- **statistical methods in sociology –** giving the opportunity to process and analyze the registered empirical information from the Analysis of documents and the Survey.

**The indicated methodological levels are applied in accordance with the sociological principles:**

**1. The unity between theoretical and empirical** - It shows the logic, the way to gain scientific knowledge about long-term forecasting and the global integration around some of his ideas.

**2. Unity of objective and subjective** - Allows to study and explain the social reality. It gives knowledge and ideas that reality exists objectively and part of this reality can be registered not only through the senses but also in an abstract way of thinking, especially when it is related to future social reality and is done through the methods of long-term forecasting.

As mentioned earlier, in Bulgaria long-term forecasting is known to be present in the research of **Ya. Yankov, I. Kusev, V. Georgieva, S. Ilieva** and in some of the textbooks related to economic forecasting.

But the basic basis for the development of the dissertation are the fundamental scientific experiments, concepts and theoretical works of: **I.V. Bestuzhev - Lada, A. Toffler, F. Fukuyama, D. Meadows, J. Tinborgen, S. Inaatolah, B. De Juvenel, R. Aron, K. Galbraith, W. Rostow, J. Attali, A. Pechei, D. Meadows, D. Gabor, J. Botkin, O. Giorini, S. Kapitsa** and others.

*The scientific results achieved by the above-mentioned authors related to the long-term forecasting and creation of ideas around which there is global integration can be presented in a summarized form:*

- methodological justification of the need for long-term forecasting in order to manage the future of human society;
- formulation of important ideas for the development of human civilization, around which to integrate humanity;

- presentation of different countries and areas of human development in the future, which are already present.

In order for the long-term forecasting to be studied, analyzed, explained and applied in detail, a large volume of theoretical and practical-applied knowledge about it is presented, which is part of the **cognitive strategy of the dissertation**. Presented in this way, they fill the gap of in-depth knowledge about it in the Bulgarian scientific literature and give a detailed idea of its multifaceted realization on a global scale and the techniques of its realization. The author's aspiration has given the fullest possible idea of the effectiveness of long-term forecasting.

**Credibility and scientific substantiation of received scientific and practical results are secured by:**
- the foundation of the dissertation on fundamental scientific positions of the theory related to long-term forecasting;
- complexity in the selection of research methods;
- analysis of the obtained results, comparability of the obtained data with the practice, through sociological research.

**The theoretical significance of the dissertation** consists in:
1. Presenting the development of ideas and practices for long-term forecasting and systematization of theoretical ideas about it.
2. Formulation of the role of long-term forecasting in various public spheres, at national and global level.
3. Derivation of theoretical conclusions about the effectiveness of long-term forecasting and the ideas formulated by him for the integration of human society around them.

**The practical significance of the dissertation** consists in:
1. The dissertation is important for the practical training of students in the discipline "Futurology".
2. The theoretical formulations of the dissertation allow some of the ideas of long-term forecasting to be applied in the social practice of society.

# FIRST CHAPTER
## DEVELOPMENT OF IDEAS AND PRACTICES FOR LONG-TERM FORECASTING

This chapter shows how ideas about the future and its prediction have evolved from antiquity to the present day. The necessity of creating a science for long-term forecasting in the future - futurology - is considered. A brief description of its main methods is made. All this is done in order to create a basic, theoretical idea of long-term forecasting, which will serve as a further, theoretical analysis of the prospect of integration around long-term forecasts worldwide.

The following are considered:
- Awareness of the present and uncertainty about the future in the Primitive (prehistoric) society;
- Imaginations of possible future worlds in Antiquity. Oracle tradition;
- Utopian concepts for the future;
- Science fiction - an art form for long-term forecasting of the future of mankind;
- Creation of Futurology as a science for the future, a symbol of long-term forecasting;
- Established representatives of long-term forecasting and their concepts for the future;
- Basic concepts and theoretical positions defining long-term forecasting;
- Methods for long-term forecasting.

Based on the content presented in the First Chapter, the following are derived
### summaries and conclusions:
I. **Regarding the origin and realization of the idea of long-term forecasting:**

1. The idea of penetrating far into the future of human society has excited humanity from the earliest periods of human civilization to the present day. They can be systematized as:

- *Ideas of the Old World* – Possible future worlds are represented mainly by purely *intuitive forms,* mainly through the institution of *the Oracles,* which determined the private and public life of the ancients; their influence has extended to the socio-political process and interstate relations in the cities-polises.
- *Religious concepts* – appear together with the emergence and establishment in antiquity of the main religions: Buddhism and Abrahamic religions (Judaism, Christianity, Islam); The emergence of ancient *philosophical and historical concepts* - in China (Meng Tzu and Zhuang Tzu); in India (Sankhya and Charvaka); in Greece (Hesiod, Plato, Aristotle, etc.).
- *Utopian concepts* – appeared first in Egypt and Persia, but later developed in parallel with the emergence of Buddhism, Judaism, Christianity. Utopia flourished in Europe in the 16th century - 18th century, and they are associated with the names of T. Campanella, T. Moore, J. Locke, B. Spinoza, J.-J. Rousseau, A. Saint-Simon, J. Fourier, Al. Herzen, N. Chernyshevsky, as well as by connecting the utopias with the classical political economy by A. Smith, D. Ricardo and the proletarian movement by K. Marx and Fr. Engels.
- *The emergence of science fiction* – As early as the 19th century, the scientific achievements of the industrial revolution began to be linked to the artistic word, the so-called "Reflections on the future" (after I. Bestuzhev-Lada), which has continued to this day; in this connection is the work of S. Riche, J. Golden, J. Verne, H. Wells, A. Clark, R. Hanline, St. Lem et al.

1. Based on the processes mentioned in item 1, in the middle of the twentieth century the German-American sociologist Osip Flechtheim pleaded for the creation of a Philosophy of the Future, which he called Futurology. A science whose goals are long-term

forecasts both for human society as a whole and for its individual spheres. Its institutionalization takes place in two lines:

- Creation of theories related to long-term forecasting, the future of human society - this is done by established sociologists and futurologists such as O. Fletheim, H. Kahn, B. de Juvenel, D. Gabor, J. K. Galbraith, R. Aron, D. Bell, W. Rostow, A. Touraine, A. Toffler, J. Naisbitt, F. Fukuyama, R. Karsuail, I. Bestuzhev-Lada and others.
- Establishment of institutions creating long-term scientific forecasts for the future - Club of Rome, World Federation for Futurological Research, RAND Corporation, Hudson Institute, Millennium and others.

II. **Regarding the main theoretical positions related to long-term forecasting as a practice:**

1. The scientific terminology related to long-term forecasting is expressed in terms such as: forecasting, forecasting, forecasting, prediction, prejudice, planning, modeling, goal setting, etc.
2. Long-term forecasts are defined by various features, including: problem-target criterion, the object of forecasting, the spatial scope, the object of forecasting, the spatial scope, the expected effect, etc.
3. There are types of forecasts according to all public spheres.
4. Modern futurology has over 150 methods for long-term forecasting. Examples of established such methods are: Anticipatory thinking Protocols; Technology roadmapping; Social network analysis; Backcasting; Brainstorming; Relevance tree, etc.

# CHAPTER TWO
## GLOBAL INSTITUTIONS FOR LONG-TERM FORECASTING AND THEIR REPORTS

There are numerous institutions in the world for long-term forecasting of global models of human society, which are international, national or regional scientific organizations, among which: World Futures Studies Federation – WFSF; Academy for Forecasting the Future - Moscow, Russia; Millenium – USA; RAND Corporaton - USA; Hudson Institute – USA.

But the flagships of long-term forecasting are two institutions that will be considered in the order of their emergence and development - RAND Corporation and Club of Rome.

The following are considered:

**RAND Corporation - the "think tank" fabric**

- Historical background for RAND Corporation;
- Scientific achievements of RAND Corporation;
- Reports of RAND Corporation.

**Club of Rome - the flagship of long-term forecasting**

- Historical background for the Club of Rome;
- Scientific achievements of the Club of Rome;
- Reports of the Club of Rome

After a thorough analysis of the content of Chapter Two, the following are presented the following **generalizations and conclusions**

1. There are numerous institutions in the world for long-term forecasting of global models for human society, which are international, national or regional scientific organizations, among which: World Futures Studies Federation – WFSF, Academy for Forecasting the Future - Moscow, Russia, Millenium – USA, Hudson Institute – USA and others. But the flagships of long-term forecasting are two

institutions that are presented in the order of their emergence and development - RAND Corporation and Club of Rome.

**2. Regarding RAND Corporation and its forecast reports:**

- The expert staff of RAND Corporation, which includes high-ranking specialists, including Nobel laureates, is a reliable source of extensive knowledge and innovative skills, whose ability for sound scientific judgment is the basis for substantiating and creating disparate topics related to long-term forecasting.
- Research at RAND Corporation is aimed at substantiating knowledge in the form of verifiable explanations, which can predict the results of future events, combined in a wide range of scientific theories, experimentally tested and accepted by the world scientific community - e.g. Game Theory, Rice-Shapiro Theorem, Artificial Intelligence Theory and others.
- The scientific methodology of RAND includes the formulation of hypotheses tested in controlled conditions, which can be reproduced by other scientists and other scientific organizations.
- The main achievements of RAND since its establishment until 2020 are: study of the proliferation of nuclear weapons, including analysis of the economic, political and technical aspects of nuclear facilities in different countries; a series of covert programs to develop technical means for military action, including a rotating scanning camera for air reconnaissance, "quiet" night-time air reconnaissance aircraft and new methods of bombing; forecasting the first spacecraft and subsequent ones for space exploration and development, and supporting NASA programs;
- Development of a method based on the use of computers - electronic simulation or creation of a computer system simulating the operation of another system, which can be anything - from the model of the human heart to weapon systems; development of several fine mathematical techniques, in particular linear

programming, dynamic programming, problem prioritization, nonlinear programming, etc.

All these areas are "backed up" by thousands of reports, so it is not possible to specify them. In view of the topic of the dissertation, its author focuses on the 1946 forecast for forecasting the first spacecraft related to space exploration and development, and supporting NASA programs. This report sends humanity into space and makes it a leading forecast of the RAND Corporation.

### 3. Concerning the Club of Rome and its prognostic reports:

- The Club of Rome is one of the first indisputable indicators of an emerging world consciousness regarding the future of human society. His main research issues are global challenges and the fate of humanity. A series of in-depth discussion studies are published under the logo of the Club of Rome.
- The Club of Rome organizes large-scale research on a wide range of issues such as: global modeling, global issues, life values and the prospects for human development. global modeling, the development of the world's first computer models, the critique of the negative tendencies of Western civilization, the debunking of the technocratic myth of economic growth as the most important solution to all problems, the search for a way to humanize the world, the protection of the environment, increasing the well-being of people, improving the quality of life, etc.
- These reports and their ideas can be systematized in two areas: Society - nature - environmental degradation; extremely high population growth; depletion of natural resources; others. 2. Man - society - arms race; international organized crime; lagging behind developing countries.
- In view of the present dissertation, two prognostic ideas should be singled out, which are extremely important for humanity: 1. **The population of the earth** / Report "Growth Limits" - 1972 by D.

Meadows, J. Randers, W. Bearens; "Global population growth and beyond" - 2006 by S. Kapitsa /; 2. **Sustainable Human Development /** Revision of the International Order - 1976 by J. Tinborgen; Report "The Goals of Humanity" - 1977 by E. Laszlo; Report "Energy: Countdown" - 1978/79 by T. Montbrial; Report "Towards more efficient societies" - 1980 by B. Havrilishin; Report "The First Global Revolution" - 1991 by A. King and B. Schneider; Report "Taking Nature into Consideration" -1995 by W. Van Diren; Management Capacity Report - 2011 by I. Dror;  Report "The Collapse of Nature: Denial of Planetary Boundaries" - 2012 by A. Wickman and A. Rockström; Report "2052: Global Forecast for the Next Forty Years" by J. Randers; Report "Choosing our future: alternatives to development" - 2015 by A. Kosha; Report "Come on!" - 2017 by Von Weizsäcker and A. Wiekmann et al./

*The above makes it possible to identify two areas of integration of world society, which are: 1.population of the earth; 2. sustainable development.* The dissertation work develops around these two ideas.

# CHAPTER THREE
## GLOBAL INTEGRATION AROUND THE LONG-TERM FORECASTS OF THE LEADING FUTUROLOGICAL INSTITUTIONS. EMPIRICAL STUDY.

1. **Defining the term "integration"** (from the Latin integratio union, union) is a process of unification of individual parts into a whole. The opposite term to this is "differentiation" - the division of the whole into fragments. It is stated that in the dissertation this term is understood as the integration of ideas and data. This chapter discusses the main forecasting ideas discussed in the previous, Second Chapter, namely:

*• Integration around the long-term forecast for the conquest of outer space by man (RAND Corporation);*

*• Integration around the long-term forecast of the Earth's population (Club of Rome);*

*• Integration around the long-term forecast for sustainable development (Club of Rome).*

**2. Describe in detail an empirical study on long-term forecasting and integration around his ideas**

It has the following parameters:

*Object of research:* Long-term forecasting.

*Subject of research:* Influence of global institutions for long-term forecasting on global integration processes

*Aim of the study:* To identify the ideas of global institutions that serve to integrate the world community around them.

*Objectives of the study:* 1. To establish how effective long-term forecasting is worldwide; 2. To what extent the ideas of long-term forecasting serve the development of mankind.

*Research methods and tools.*

*The current empirical research conducted for the purposes of the doctoral dissertation is two-layered as two research methods have been used:*

1. ***Analysis of documents -*** related to global integration, around long-term forecasts created by futurological institutions;
2. ***Direct electronic survey*** – with students studying the subject Futurology, on long-term forecasting and forecasts given by futurological institutions.

***Collection of empirical and theoretical material -*** in accordance with the purpose and objectives of the study, is carried out through the methods of empirical or theoretical research, and for this purpose the necessary research data are collected, fixing the content of the topic.

The collection of empirical material for the present study proceeded according to the methods used in the following phases:

1. ***The analysis of documents*** related to the global integration around the long-term forecasts of leading futurological institutions covers 72 documents - reports, scientific communications and programs presented in the Second and beginning of the Third Chapters of this dissertation.

2. ***The survey with students*** on the integration around long-term forecasts, which was carried out in the period 15.12.2020 - 23.12.2020 and which is to be presented in the next paragraph.

***The analysis, processing and interpretation*** *of the survey data and the content presented in this chapter make it possible to derive the following*

***summaries and conclusions:***

1. ***Regarding the achievement of objectives through empirical research:***
- Empirical research is realized through two research methods - Document Analysis and Direct Survey.
- The following processes of global integration around long-term forecasts of forecasting institutions have been established:
- Empirical research is realized through two research methods - Document Analysis and Direct Survey.

2. The following processes of global integration around long-term forecasts of forecasting institutions have been established:
2. Integration around the long-term forecast for the conquest of outer space by man (RAND Corporation);
3. Integration around the long-term forecast of the Earth's population (Club of Rome);
4. Integration around the long-term forecast for sustainable development (Club of Rome).

## *2. Regarding the Analysis of documents:*

Two types of documents are analyzed - supranational / international and national, which have a direct bearing on global integration around the ideas of long-term forecasting.

The analysis of documents highlighted:

- The stages in the mastery of space;
- The apotheosis of world integration in the mastery of space - the International Space Station "MIR;
- Bulgaria's contribution to the mastery of space;
- The contribution of Shumen University "Ep. Konstantin Preslavski "in the mastery of space;
- International and national forums for the population are indicated;
- Focused on the International Conference on Population and Development - Egypt, 1994 with over 11 thousand participants;
- The conclusions from these national and international conferences for the population are indicated: rapid efforts are needed to stabilize the world's population and achieve sustainable development; the framework for improving the quality of life of present and future generations is outlined.
- It shows with reliable examples how the world has embraced the long-term forecast for sustainable development - examples are given for international forums from 1972 to 2020; they deal with

the link between economic development and environmental degradation;

- The Goals for Sustainable Development of the World / UN / are analyzed;
- The response of the European Union regarding the goals for sustainable development is also analyzed;
- The answer of Bulgaria regarding the goals for sustainable development is presented - National Development Program: 2030 / from 20.01.2020
- All forums and documents lead to accelerated economic development, demographic growth and reduction of inequalities, for the implementation of which targeted policies and interventions are envisaged.

*3. The survey / direct, electronic / presupposes the following summaries and conclusions:*

- Students from the specialty "Social Activities", III and IV year were selected for the survey. Since 2015, they have been studying the subject "Futurology" according to the curriculum of the third year. Thus, the respondents are those who were surveyed at the time of studying science, and from the fourth year - have already passed the training course in it;
- students unmistakably define the essence of the science "Futurology" - they all absolutely define it as a science for the future;
- the respondents answer the question what is the subject of Futurology - more than two thirds correctly indicate that this is the long-term forecasting;
- respondents agree on the statement that a forecast over 15 years can be set for long-term forecasting;
- according to the respondents, the most important questions of research in Futurology are the question of the mastery of space by man;

- according to the respondents, the most long-term forecasts are for the development of the society and for the technological development;
- according to the respondents, ideas of long-term forecasting, around which humanity is most integrated, are those related to the future development of humanity and technological forecasting;
- above all, humanity would integrate around the idea of protecting the Earth as the only human habitation;
- If there is global integration around the ideas of long-term forecasting related to war and human security, then students would prefer the idea of complete disarmament of humanity;
- One of the most important questions asked to the respondents is whether there is a need for an institution / s for long-term forecasting in Bulgaria - two thirds of them think that there is such a need;
- The last question of the survey is: "If you were given the opportunity to work in such an institution, which area of long-term forecasting would you deal with?" - half of them would deal with the development of human society; also an impressive part would deal with the protection and development of the Earth as the only home of man.

**CONCLUSION**

In the dissertation development is achieved:

A. From a general theoretical point of view:

1. The aim of the present **research** is to obtain knowledge about long-term forecasting in the form of verifiable explanations, as a result of summarizing and synthesizing the results related to it.

2. In the dissertation the **cognitive activity** is realized on two main levels of comprehension of the reality: empirically and theoretically, in order to reflect in depth the objective reality, connected with the evolution of the long-term forecasting.

3. Thanks to the **empirical knowledge** in the dissertation, a large enough amount of scientific evidence has been accumulated, thanks to which notions and knowledge of long-term forecasting are formed sufficiently to serve as a basis for in-depth scientific reasoning.

4. **Theoretical knowledge** in the dissertation development goes deeper into the scientific research and explains the specific essential characteristics of long-term forecasting. Through this level of knowledge the contemplation of empiricism is overcome, the essence is explained, the knowledge about it is systematized and utilized. This leads to a theoretical understanding of long-term forecasting as a scientific method.

5. The main feature of long-term forecasting **as a scientific method** is that it is based on the collection of observable, empirical and measurable evidence, on the basis of which future trends are formulated. The presented empirical evidence for its evolution shows that in addition to the rich human practice, *it is also used in various groups of sciences:*

- *natural sciences* - astronomy, ecology, earth sciences, etc.
- *social sciences* - archeology, economics, political science, etc.
- *humanities* - theology, social sciences, philosophy, culturology, etc.
- *applied sciences* - engineering, technology, agronomy, aeronautics, energy, etc.

6. But it should be deeply emphasized that **in the genesis of long-term forecasting are the formal sciences** - logic, mathematics, game theory and others.

7. In the dissertation the goal of the scientific research has been reached by **creating a scientific contribution** in the direction of proving the working hypothesis and summarizing new and confirmatory facts about the effectiveness of long-term forecasting.

B. From a general sociological point of view, long-term forecasting is related to:

1. design of **social dynamics and social changes;**
2. forecasting of the **social change** - change of the whole system or elements of the society;
3. **social time -** makes the connection between present and future;
4. **the social effect** of human activity both in the present and in the future;
5. **the modeling of social processes** for a long-term period of time;
6. **the social design** as scientifically-based modeling of social objects;
7. the study of current and future **social processes;**
8. has a direct relation to the **social management;**
9. **the sociological experiments -** gives the opportunity to select, establish or predict the possibilities of different forms of social activity;
10. the enrichment of the **sociological metacognition**, supporting the development of its theoretical and empirical levels.

C. From the point of view of certain sociological theories, long-term forecasting is:

1. **An approach to predicting different futures** (Bertrand de Juvenel) - The future is a fan of opportunities, ie. humanity has not just one future, but immeasurably many possible alternative futures. Contributes to anticipating this fan of such opportunities and alternatives for action that challenge these futures;

2. **A way to construct the future social reality** (Peter Burger and Thomas Lukman) - According to them, all human knowledge of reality rests on everyday life and the social interactions in it, they construct the existing social reality "here-and-now". By constructing the present reality "here-and-now", the subjects involved in the process also reproduce models of the future.
3. **Expression of the social dynamics of culture** (Abraham Malls) - long-term forecasting is a cultural response to the existing reality for the future and is based both on world memory and on the socio-cultural tables assimilated by the individuals who realize it through any of the above-mentioned futurological methods;
4. **Third Wave Technology and Overcoming the Shock of the Future** (Alvin Toffler) - In the context of Alvin Toffler's theoretical views on Third Wave society and overcoming the shock of the future, long-term forecasting plays a key role. It can be used to achieve strategies for governing society or its spheres.
5. **Approach to risk society management** (Ulrich Beck) – Through long-term forecasting, one or another risk is scientifically predicted, it is possible to control and overcome them and at the same time it is a response to the call for timely actions for the future.

# SCIENTIFIC CONTRIBUTIONS

1. Knowledge of the historical development of long-term forecasting worldwide from Antiquity to the Present has been studied and systematized.
2. The scientific terminology related to long-term forecasting is presented.
3. Established methods of long-term forecasting are analyzed.
4. World-famous institutions for long-term forecasting are shown, among which stand out RAND Corporation and Club of Rome.
5. The main reports of RAND Corporation and Club of Rome are analyzed.
6. The main ideas of the world institutions for long-term forecasting around which the world is integrated are presented: Space, population of the earth and sustainable development.
7. The contribution of Bulgaria and the Konstanrin Preslavsky - University of Shumen in the mastery of space is highlighted.
8. International and national forums for the population of the Earth are systematized.
9. It shows with reliable examples how the world has embraced the long-term forecast for sustainable development - examples are given for international forums from 1972 to 2020.
10. An empirical study was conducted with an author's questionnaire on the problems of long-term forecasting and integration around long-term forecasts.

# DECLARATION OF AUTHORSHIP

I declare that this my dissertation to acquire the educational and scientific degree "doctor" on "Impact of global institutions for long-term forecasting on global integration processes" is my original design and is in no way prejudice the copyrights of others. I have quoted the literature correctly in all the places where I have mentioned ideas from it.

I know that I am responsible for the use of foreign texts without quoting their authors according to the Criminal Code of the Republic of Bulgaria.

## PUBLICATIONS ON THE TOPIC OF THE DISSERTATION

1. **Petrov, N.** Origin of long-term forecasting // Collection "The social world with the focus of scientific creativity of students and doctoral students", pp. 34-45, University publishing house "Episkop Konstantin Preslavsky", ISBN 978-619-201-252-6, Shumen, 2018

2. **Petrov, N.** Futurological Paradigm in the Sociology // SocioBrains, Issue 60, August 2019, pp. 24-31, ISSN 2367-5721 (online), www.sociobrains.com, Publ.: Smart Ideas – Wise Decisions Ltd., Bulgaria, 2019

3. **Petrov, N.** Contribution of the Rand Corporation for Long-Term Forecast on Mastering the Space and Human Development // SocioBrains, Issue 61, September 2019, pp. 19-26, ISSN 2367-5721 (online), www.sociobrains.com, Publ.: Smart Ideas – Wise Decisions Ltd., Bulgaria, 2019

4. **Petrov, N.** Delphic Oracle, Rand Corporation and Method Delphi, Annual of Konstantin Preslavsky – University of Shumen, Faculty of Education, Vol. XXIIID, 35 years Faculty of Education, University publishing house "Episkop Konstantin Preslavsky", Shumen, 2019, pp. 730-738, ISSN 1314-6769

5. **Petrov, N.** World trends and organizations for futurology education // Collection of scientific papers of students and doctoral students from the Faculty of Education 2019, ISSN 2367-5764, pp. 102-110, Shumen, University publishing house "Episkop Konstantin Preslavsky"

6. **Petrov, N.** Long-term forecasting - from historical society to the creation of the science of futurology // Annual of Konstantin Preslavsky – University of Shumen, Faculty of Education, pp. 667-675, Vol. XXIV D, Shumen, University publishing house „Episkop Konstantin Preslavsky", 2020, pp. 135-148, ISSN 1314-6769.

7. **Petrov, N.** Long-term forecasts in the reports of the Club of Rome // Collection of scientific papers Traditions and

innovations in the provision of social services, 2020, Shumen, pp. 198-244, University publishing house „Episkop Konstantin Preslavsky", ISBN 978-619-201-466-7

8.  **Petrov, N.** RAND Corporation Forecast Report for Control of Space // SocioBrains, Issue 76, January 2021, pp. 111-122, www.sociobrains.com, Publ.: Smart Ideas - Wise Decisions Ltd., Bulgaria, ISSN 2367-5721 (online), 2021, **(study)**